

Assistive Camera Control

ECE-405

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User Manual

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INSTALLATION

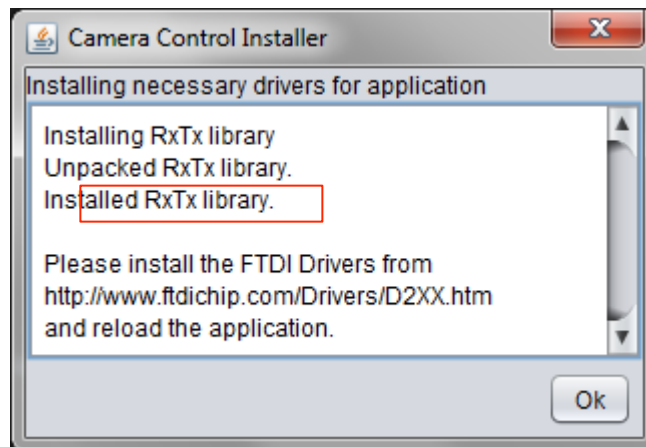
FIRST RUN

The installation process for the Camera Control System is pretty straight forward. You should have been provided with CameraControl.jar, which is the only file needed to run the system.

Before running it, please check the following:

- Make sure the latest version of Java is installed. You can get the latest version from <http://www.java.com>
- Make sure that the Camera Control program is being run from an administrative account for installation purposes.
- Install the VCP drivers from FTDI. These are located at <http://www.ftdichip.com/Drivers/VCP.htm>

Once the above has been completed, run CameraControl.jar for your first time. You should see the following:



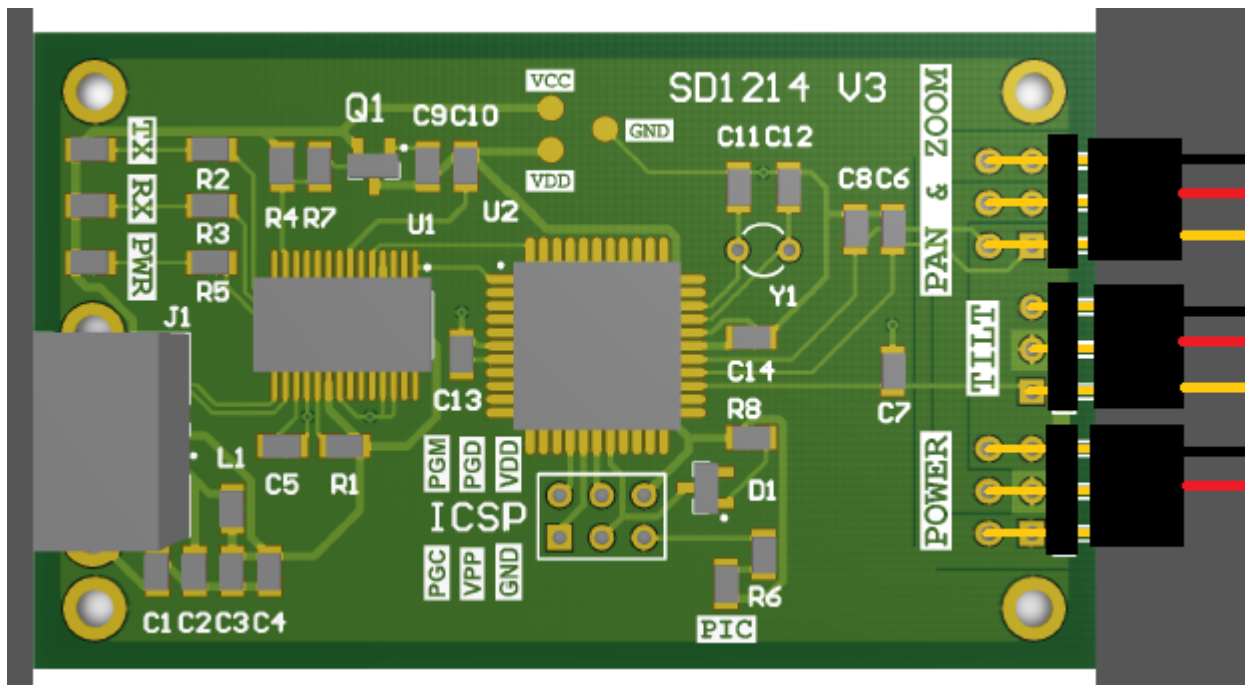
If you do not get this message, double check that the program is being run from an administrative setting. If problems still persist, contact Steven at smgoldade@gmail.com

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CONNECTING THE CAMERA

Now that the system has installed, we need to verify the camera is setup correctly. Mount the camera to the system using the provided hardware. Make sure the zoom gear is firmly pressed against the follow focus ring on the barrel of the camera.

Verify that the hardware cables are connected as follows:



The important thing is the location of the yellow wires. Verify they are in the correct position.

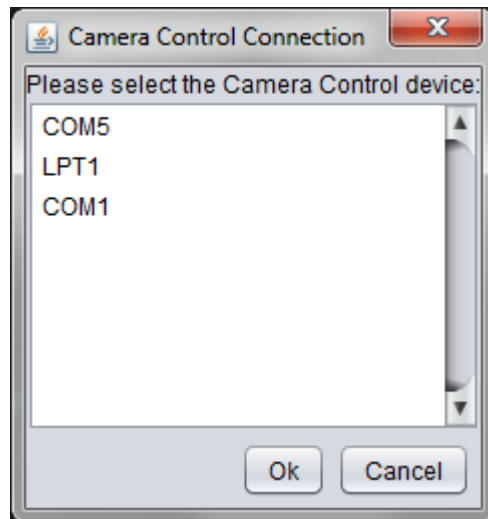
The **Pan servo** connects to the bottom of the header, and the **Zoom servo** connects to the top of the header.

Now plug the USB cable into both the laptop and the control board. The control board should light up indicating it has power.

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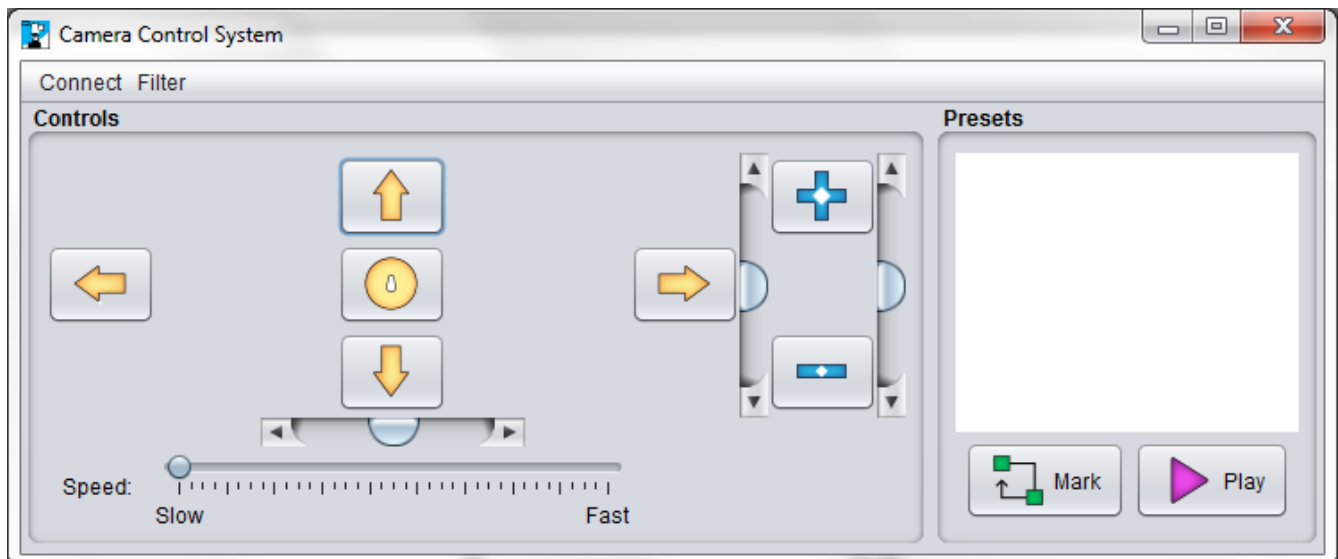
USING THE SOFTWARE

Now load the software again, and you should see the following screen, or one similar:



Select the correct port, on Mac select the **tty.usbserial** option.

Now you should be at the programs main screen:



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HOTKEYS

The hotkeys to use the application are as follows:

Left – **Control A**

Right – **Control D**

Up – **Control W**

Down – **Control S**

Zoom In – **Control E**

Zoom Out – **Control Q**

Decrease speed – **Control O**

Increase speed – **Control P**

If you have any presets, they will show up on the right, and can be played back using the Play key, or **Control N**.

If no presets are available you must create them. Do this by using the Mark command, or **Control M**. This allows you to mark of a list of locations, which can then be played back using the Play command.

The presets will be saved to the computer, and remembered for the next time you use the application.

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TROUBLESHOOTING

THE INSTALLATION ISN'T WORKING

This is caused by not properly running the application in administrative mode during its installation process. Reload the application as an administrator.

THE CONTROLS DO NOT WORK

Verify that the connections to the board are correct, specifically the location of the yellow wires must match that of the picture. Also verify that pan is on bottom, zoom on top, and tilt is correctly inserted as well. Make sure the power supply is also connected correctly and is lit up on use.

IT KEEPS SAYING THAT THE SERIAL PORT IS IN USE

This is an issue with some versions of Mac OS X. To resolve it, open Terminal (from Applications->Utilities) and enter the following:

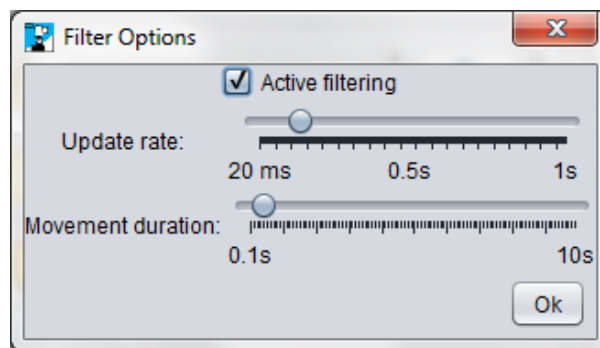
```
sudo mkdir /var/lock (Press enter)
```

```
sudo chmod 777 /var/lock (Press enter)
```

This requires administrative privileges.

THE APPLICATION LOCKS UP AND FREEZES

This is an issue with some versions of Mac OS X. The can be resolved by restarting, and then clicking on the Filter menu option in the Camera Control application. Adjust the update rate to be slower, or turn it off entirely. This may affect the smoothness of the camera movements however, so it is recommended to leave the filter on and simply lower the update rate.



With any other issues, please contact Steven Goldade at smgoldade@gmail.com for assistance. Try to include any errors provided in the email so that he can best sort out the problem.